

Claims

What is claimed is:

1. A location-based grouping method for a wireless communications system, comprising:

defining a plurality of zones within a wireless network coverage area;

assigning a dynamic network subscriber group number to each of the plurality of zones within the network coverage area;

maintaining both a static network subscriber group database containing network-wide subscriber subscription parameters and a dynamic network subscriber group database containing zone-specific network subscriber subscription parameters; and

requiring a network subscriber to register and provide the dynamic network subscriber group number when the network subscriber enters into one of the plurality of zones within the wireless network coverage area to thereby identify a location of the network subscriber as being within the one of the plurality of zones within the network coverage area and to consequently provide services to the network subscriber based on the static and dynamic network subscriber group subscription parameters associated with the network subscriber.

2. The method of claim 1, wherein the requiring a network subscriber to register and provide the dynamic network subscriber group number when the network subscriber enters into one of the plurality of zones within the wireless network coverage area comprises requiring the network subscriber to provide GPS-based location information

when the network subscriber enters the one of the plurality of zones within the network coverage area to thereby identify the location of the network subscriber.

3. The method of claim 2, further comprising periodically downloading a zone group mapping table to the network subscriber to enable the network subscriber to determine its location within the one of the plurality of zones within the network coverage area based on the GPS-based location information and corresponding information in the zone group lookup table.

4. The method of claim 3, further comprising requiring the network subscriber to provide the corresponding information in the zone-group mapping table to thereby identify the location of the network subscriber.

5. The method of claim 1, further comprising requiring the network subscriber to deregister when the network subscriber leaves the one of the plurality of zones within the network coverage area.

6. The method of claim 1, further comprising transmitting zone-specific messages to the network subscriber after the requiring a network subscriber to register and provide the dynamic network subscriber group number when the network subscriber enters into one of the plurality of zones within the wireless network coverage area.

7. The method of claim 6, wherein the transmitting of zone-specific messages to the network subscriber comprises transmitting zone-specific messages to the network subscriber only when the network subscriber belongs to both a predetermined static network subscriber group and a dynamic network subscriber group corresponding to the one of the plurality of zones within the network coverage area.

8. The method of claim 1, wherein the requiring a network subscriber to register and provide the dynamic network subscriber group number when the network subscriber enters into one of the plurality of zones within the wireless network coverage area comprises requiring a plurality of network subscribers to register when each of the plurality of network subscribers enters respective ones of the plurality of zones within the network coverage area to thereby identify a location of each of the plurality of network subscribers as being within the respective ones of the plurality of zones within the network coverage area and to consequently provide services to the plurality of network subscribers based on static and dynamic network subscriber group subscription parameters associated with each of the plurality of network subscribers.

9. The method of claim 1, further comprising notifying the network subscriber when one or more subscribers belonging to a static network subscriber group matching that of the network subscriber are also registered within the one of the plurality of zones within the network coverage area.

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10. The method of claim 1, further comprising transmitting an alert to a subscriber controlling entity when the one of the plurality of zones within the network coverage area entered into by the network subscriber varies from a set zone entry pattern authorized by the subscriber controlling entity.

11. A location-based grouping method for a wireless communications system, comprising:

defining a plurality of zones within a wireless network coverage area;

assigning a dynamic network subscriber group number to each of the plurality of zones within the network coverage area;

maintaining both a static network subscriber group database containing network-wide subscriber subscription parameters and a dynamic network subscriber group database containing zone-specific network subscriber subscription parameters;

transmitting zone coordinate data to a network subscriber via a short-range wireless communication link; and

requiring a network subscriber to register and provide the dynamic network subscriber group number when the network subscriber enters into one of the plurality of zones within the wireless network coverage area to thereby identify a location of the network subscriber as being within the one of the plurality of zones within the network coverage area and to consequently provide services to the network subscriber based on the static and dynamic network subscriber group subscription parameters associated with the network subscriber.

12. The method of claim 11, wherein the transmitting of zone coordinate data to a network subscriber via a short-range wireless communication link comprises transmitting zone coordinate data to a network subscriber via at least one of a BluetoothTM and an infrared signal transmitting device.

13. The method of claim 11, further comprising requiring the network subscriber to deregister when the network subscriber leaves the one of the plurality of zones within the network coverage area.

14. The method of claim 11, further comprising transmitting zone-specific messages to the network subscriber after the requiring a network subscriber to register and provide the dynamic network subscriber group number when the network subscriber enters one of the plurality of zones within the wireless network coverage area.

15. The method of claim 14, wherein the transmitting of zone-specific messages to the network subscriber comprises transmitting zone-specific messages to the network subscriber only when the network subscriber belongs to both a predetermined static network subscriber group and a dynamic network subscriber group corresponding to the one of the plurality of zones within the network coverage area.

16. The method of claim 11, wherein the requiring a network subscriber to register and provide the dynamic network subscriber group number when the network subscriber enters into one of the plurality of zones within the wireless network coverage area

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comprises requiring a plurality of network subscribers to register when each of the plurality of network subscribers enters respective ones of the plurality of zones within the network coverage area to thereby identify a location of each of the plurality of network subscribers as being within the respective ones of the plurality of zones within the network coverage area and to consequently provide services to the plurality of network subscribers based on static and dynamic network subscriber group subscription parameters associated with each of the plurality of network subscribers.

17. The method of claim 11, further comprising notifying the network subscriber when one or more subscribers belonging to a static network subscriber group matching that of the network subscriber are also registered within the one of the plurality of zones within the network coverage area.

18. The method of claim 11, further comprising transmitting an alert to a subscriber controlling entity when the one of the plurality of zones within the network coverage area entered into by the network subscriber varies from a set zone entry pattern authorized by the subscriber controlling entity.

19. A wireless communications network tracking system, comprising:
a plurality of network transmitters each for defining a network coverage area; and
a network service provider for dividing the network coverage area into a plurality of network coverage zones, for maintaining both a static network subscriber group database containing network-wide subscriber subscription parameters and a dynamic

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network subscriber group database containing zone-specific network subscriber subscription parameters, and for receiving registration information from a network subscriber programmed to report thereto when the network subscriber enters into one of the plurality of zones within the network coverage area to thereby identify a location of the network subscriber as being within the one of the plurality of zones within the network coverage area and to consequently provide services to the network subscriber based on the static and dynamic network subscriber group subscription parameters associated with the network subscriber.

20. The system of claim 19, further comprising a business unit having a plurality of network subscribers, the business unit for purchasing tracking services from the network service provider to enable the business unit to receive static and dynamic network subscriber group tracking information from the network service provider.

21. The system of claim 19, further comprising a plurality of short range, low power transmitting devices strategically placed throughout the network coverage area to define the plurality of network coverage zones.

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